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NPS Faculty Help Princeton Undergrad Explore Missile Defense Tactics

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Matthew Schehl | July 2, 2020



Princeton University NROTC student MIDN 1/C Kara Dowling's senior year capstone project explored the use of offensive missiles in a defensive capacity. With volunteer guidance from NPS' own experts in the operations research program, Dowling produced an analytic product of direct relevance to the warfighting capabilities of the Navy.

In August 2019, Princeton ROTC student MIDN 1/C Kara Dowling visited the Naval Postgraduate School (NPS) to conduct research with members of the university's Operations Research (OR) department for her senior year capstone project. The midshipman then returned on May 11th – via teleconference – to brief NPS faculty on her findings.

Dowling's thesis, entitled "Offensive as Defensive in Naval Warfare," explored a question posed by OPNAV N96 (Surface Warfare Command) that deals with using offensive missile capabilities in a defensive manner. Under the guidance of NPS faculty, she had crafted an analytic product of direct relevance to the warfighting capabilities of the Navy.

“The cooperative research advisement between Dowling’s Princeton’s faculty and NPS faculty enabled her to address a real-world warfighting issue in her senior operations research capstone project,” noted retired Navy Capt. Jeff Kline, a Professor of Practice in the OR department who worked with Dowling as her thesis advisor. “This initiative demonstrates NPS’ commitment to furthering the fleet’s analytical and technical warfighting skills regardless of rank.”

According to U.S. Navy Capt. Brian Morgan, program officer for NPS’ OR curriculum, Kline’s experience as a former Navy captain in the Surface Warfare community made him the perfect match to help advise and mentor Dowling through the research process. Following graduation, Dowling herself will report to USS Blue Ridge (LCC-19), homeported in Yokosuka, Japan, as a Surface Warfare Officer.

Morgan, who championed the concept of helping undergraduate Midshipmen conduct their research at NPS, was initially contacted by the executive officer of NROTC Unit Rutgers-Princeton, Cmdr. Haden Patrick, about a possible thesis topic for Dowling. According to Patrick, NROTC was only recently established in 2014, and at present time there are not a lot of understanding of Navy interests in their academic departments.

“A lot of topics were discussed during our initial tele-conference with Dowling,” Morgan said, “NPS-proposed thesis topics and analytic techniques, other potential thesis topics, the university’s research interests and the level of support by NPS faculty.”

Bowling’s thesis topic was formally approved in January 2019, and in August of that year journeyed to Monterey to meet up with NPS’ OR faculty for a weeklong deep dive into the methodology and research to support her work. As her studies at Princeton neared an end this May, Bowling presented her findings – and recommendations – to NPS faculty via tele-conference.

“Bowling’s presentation was important because it helped provide two things,” he said. “First, it is important to communicate insights and recommendations of the research to the stakeholder community. Secondly, skills such as presenting analysis are very important to learn, because even the best insights will be not make a difference if poorly communicated.

“This gave Dowling the opportunity to not only do that, but refine important professional skills such as public speaking that every officer should master,” he added.

In a subsequent brief to fellow NPS faculty to further the practice of providing research assistance to talented Midshipmen in their undergraduate studies, Morgan noted that providing operationally relevant topics and research assistance provides great value to the warfighting community by further aligning students with **Education for Seapower** strategic initiatives.

Additionally, supporting Midshipmen helps build enduring student networks and promotes further academic exchanges between NPS and the student's university.

"We hope to find additional research opportunities to engage with Midshipmen at the Academy and NROTC units, and we hope to see Kara Dowling at NPS for her master's degree in four years," Kline further remarked.

Along with her presentation to NPS, Dowling will also present her thesis to the **Military Operations Research Society** as part of several working groups. Bowling's presentations will also be utilized by her NROTC commanding officer as part of a brief to continue the initiative as part of the "All NROTC Unit CO's Meeting" in December.

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U.S. Navy photo by MC2 Nathan K. Serpico

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2019 2018 2017 2016 2015
2014 2013

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January 2019

January | [February](#) | [March](#) | [April](#) | [May](#) | [June](#) | [July](#)
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January 22, 2019

Academic Assistance Programs Host Open House

January 11, 2019

NPS Welcomes New President's Student Council Leadership

Academic Assistance Programs Host Open House

By MC2 Nathan K Serpico

Writing coaches and thesis processors from the Graduate Writing Center and Thesis Processing Office, along with staff from the Dudley Knox Library, hosted an open house event for members of the Naval Postgraduate School (NPS) community, Jan. 17. A variety of games, prizes and snacks were available to attendees along with staff from each department to answer questions from students about the various resources and services they offer.

"We want to get our name out to the new students or just anyone who isn't familiar with what we can help with," said Rebecca Pieken, a thesis processor. "The Graduate Writing Center writing coaches are here to help students with academic papers as well as tips for introductions, research methods, or just anything with the paper writing process.

"Many students don't utilize the Thesis Processing Office until they are writing their theses or in their last quarter before graduation," she continued. "We aren't looking at the content of the paper, but rather the style, formatting, citations, things like that. The thesis processors and writing coaches are great resources for anyone that needs them."

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